

Well Installation Board News

The Missouri Well Installation Board held its quarterly meeting February 18, 2013, in conjunction with the Missouri Water Well Association's annual conference in Lake Ozark, Mo. The Board voted on the proposed heat pump and appeals hearing rulemakings, received updates about section activities, voted to keep fees at the current amounts for the next fiscal year, and received information regarding the changes to implementation of the Public Drinking Water Rules for subdivisions and the potential impact to drilling contractors.

The next quarterly meeting is scheduled for 10 a.m., Friday, May 10, 2013, at the Division of Geology and Land Survey, annex conference room, 111 Fairgrounds Road, Rolla, Mo. A subsequent meeting is scheduled for 10 a.m., Friday, August 23, 2013, at the Missouri Department of Natural Resources' Southwest Regional Office, 2040 W. Woodland, Springfield, Mo.

Well Records in the Greater St. Louis Area

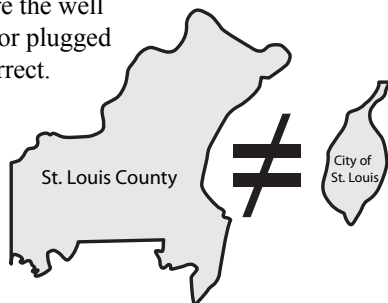
Missouri has 114 counties and one independent city: the city of St. Louis. The city of St. Louis is a separate entity that is not part of any county. We are asking contractors working in the Greater St. Louis metropolitan area to please distinguish St. Louis County from the city of St. Louis when submitting well certification and/or registration forms.

When a well record is received, administrative staff members enter the information into our database. Technical staff review the record to ensure the well was properly constructed or plugged and that the location is correct.

Many records submitted with "St. Louis" listed in the county field are actually wells located in the city of St. Louis. Verifying and correcting the county is an extra

step that disrupts the normal certification process and delays the certification and/or registration of the well.

In an effort to increase efficiency, we are asking that well records inside the city limits of St. Louis clearly state "St. Louis City" or "City of St. Louis" in the county field. Thank you for your assistance in this matter.



Christy Miner Joins the Section

Christy Miner recently accepted the position of Processing Unit Chief with the Wellhead Protection Section. She officially began her duties February 4, 2013. Christy has four years of experience with the Division of Geology and Land Survey in the Land Survey Program, as well as experience with the Department of Corrections, Mental Health and Labor



and Industrial Relations. "I am very excited about taking on the challenges involved with the operation of the Wellhead Protection Processing Unit. We have an excellent and efficient staff who work hard to make sure that our unit is successful in the day to day operations. I feel very fortunate to have been chosen to be part of this team," Christy said. Christy can be reached at 573-368-2174.

Special Area 2

The Well Installation Board voted February 18, 2013, to make the current advisory areas into impact areas. All advisory areas with the exception of the two most recent (listed in bold in the table below) are now impact areas. A revised map is being prepared and will reflect these changes. The revised map replaces the map that was mailed in January 2013 and becomes effective April 1, 2013. An electronic copy of the current Special Area 2 Map is available on Wellhead Protection Section's Publications Web page at dnr.mo.gov/geology/geosrv/wellhd/wellpub.htm or call 573-368-2165 to obtain a hard copy.

Township North	Range West	Section	Quarter Section	Area Type	Minimum Casing	Contaminants for which to Sample
24	30	13	NW	ADVISORY	385	LEAD AND CADMIUM
24	30	14	NE	ADVISORY	375	LEAD AND CADMIUM
26	30	31	NW	IMPACT	450	LEAD AND CADMIUM
26	31	36	NE	IMPACT	430	LEAD AND CADMIUM
26	31	5	NE	IMPACT	400	LEAD AND CADMIUM
28	32	8	SW	IMPACT	445	LEAD AND CADMIUM
28	31	12	NW	IMPACT	450	LEAD AND CADMIUM

2013 SME Annual Meeting Educational Outreach

Justin Davis, Investigation and Remediation unit chief, recently attended the 2013 annual meeting of the Society for Mining, Metallurgy and Exploration Inc. (SME), which was held in Denver, Colo. Justin presented a paper about the mineral resource potential of the St. Peter Sandstone in Missouri. This was an oral presentation to meeting attendees from around the world. He also chaired two technical sessions about rare earth elements with Cheryl Seeger, PhD., fellow Geological Survey Program staff member. Cheryl presented a paper about rare earth elements resident in the Pea Ridge Iron Mine, located in Washington County, Mo. SME's annual meeting is a national convention attended by geologists and other earth science professionals from mining, drilling, exploration and environmental industries, as well as academic and governmental entities. Presentations typically address worldwide mineral resource development, environmental precautions, new technologies and various industry trends. Staff member involvement in such events is a great way to bring attention to Missouri's natural resources and develop professional relationships.

Justin's paper entitled "St. Peter Sandstone Mineral Resource Evaluation, Missouri, USA" characterizes the distribution and quality of the St. Peter Sandstone as a mineral resource and discusses the geology, industrial usage and economic importance of the sandstone. A geologic and hydrologic summary of the St. Peter Sandstone will follow this article in the fall 2013 issue of *The Connection* newsletter. If you would like more information, email Justin at justin.davis@dnr.mo.gov or call 573-368-2167.

Rule Updates

Currently, four Missouri Well Construction Rule amendments are moving through the rulemaking process. Draft rules are available on the division's web page at dnr.mo.gov/geology/geosrv/geo-rules-in-dev.htm.

The proposed rulemaking regarding the Disciplinary Action and Appeal Procedures (10 CSR 23-1.075), was printed in the Missouri Register February 15, 2013, for public comment. The Well Installation Board voted via conference call March 19, 2013, to file the final Order of Rulemaking with the Secretary of State's Office. The rule should be effective in the early summer. A copy of the rule will be mailed to each company for your rulebooks.

The Board also voted to file the heat pump rulemaking (10 CSR 23-5.010 – 10 CSR 23-5.080) with the Secretary of State's Office. All companies will be notified of the date of the public hearing to be held to receive comments on the proposed language.

The Continuing Education program rulemaking is in the beginning stages. More information is forthcoming. The proposal will require all permittees to obtain continuing education credits in order to renew their permit.

The Public Well Permit Requirement rulemaking is also in the beginning stages. More information is forthcoming. The proposal will require a "public well permit" to drill or install pumps in public wells.

Questions regarding these rulemakings or the rulemaking process should be directed to Sheri Fry.

Wells Drilled for Subdivisions

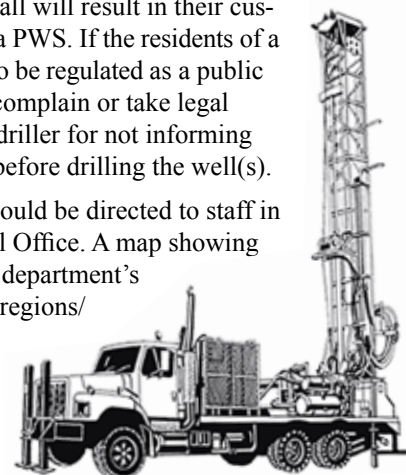
The Department's Public Drinking Water Branch recently implemented a major policy change in response to a recent federal court decision regarding subdivisions. The policy change potentially impacts the work of well drillers in Missouri, so it is important drillers are aware of the policy and its ramifications.

The U.S. District Court for the Western District of Missouri, in *Smith v. McGinnis Estates*, ruled in February 2012 that if the well(s) in a residential subdivision serves 25 or more people or 15 or more dwellings and the well(s) is owned and managed by the same entity, the subdivision is served by one public water system (PWS). It does not matter if the well(s) and distribution system(s) are interconnected or not. If the total number of people served by the well(s) under common ownership is 25 or more, or the total number of connections to the well(s) is 15 or more, the system is one PWS.

Previously, the department did not regulate a subdivision as a PWS if the multifamily wells and distribution systems serving the subdivision were not physically interconnected, regardless of whether the development was under common ownership and operation. As a result, it became common practice by many developers to install two or more multifamily wells in a subdivision, regardless of the total number of dwellings or persons living in the subdivision (so long as any single well did not serve 15 or more connections or 25 or more people). This allowed developers to avoid the expense of installing community PWS wells and adhering to other requirements of the Missouri Safe Drinking Water Law and Regulations. As a result of this court decision, it is estimated that as many as 500 subdivisions may ultimately need to be activated as a PWS.

Consequently, drillers are advised that their actions may have an effect on future customers. For example, many existing subdivisions currently do not have enough service connections or residents to meet the definition of a PWS, yet will meet the definition of a PWS in the future if an additional multifamily well(s) is drilled to serve additional residential service connections. It is imperative that well drillers understand the impact on their customers of drilling this additional well(s). To further complicate matters, because there is no requirement to notify the department prior to drilling a multifamily well, the department will have no ability to notify the well driller that the well they are preparing to install will result in their customer being activated as a PWS. If the residents of a subdivision do not want to be regulated as a public water system, they may complain or take legal action against their well driller for not informing them of this eventuality before drilling the well(s).

Questions or concerns should be directed to staff in your local DNR Regional Office. A map showing regional offices is on the department's Web page at dnr.mo.gov/regions/regions.htm.



Pilot Holes versus Test Holes for Public Supply Wells

According to the Missouri Well Construction Rules, a test hole is defined as a hole drilled in the exploration of minerals or for geologic data. This includes, but is not limited to, stratigraphic holes drilled to obtain geologic information for structural studies, seismic shot holes and industrial mineral exploration holes. The information obtained from a test hole and its location is often proprietary information and is held confidential for 10 years by the Department.

Generally, a pilot hole is drilled for water wells, but can also be installed for monitoring wells and heat pump wells. Pilot holes assist landowners, businesses or cities in determining whether the expense of drilling a high yield or community well at a certain location is warranted. Pilot holes can save the well owner time and potentially thousands of dollars if the quantity of water in an area is insufficient to meet the well owner's needs. A pilot hole often has a much smaller diameter borehole and a minimal amount of casing. Once the determination is made to complete the well, the casing is removed and the drill hole is reamed and deepened to total depth.

After a pilot hole is completed, the drilling contractor is required to submit a water well certification form, with pilot hole listed as the use of the well. Once the well is completed to meet its final use (public well, irrigation well, etc.), a reconstruction record must be submitted; DO NOT submit a new well record for the same well. The department will hold the original well record (identifying it as a pilot hole) for six months. This time frame affords the well owner time to test the pilot hole and make their decision to either plug the pilot hole or have it reconstructed into a well with proper construction standards for the intended use.

After six months, the well owner will be contacted to determine the status of the pilot hole. If the status has not changed, a letter will be sent to the well owner quarterly to determine the status. When a pump is installed, the pilot hole/well will be certified to the highest level its construction allows, as reported on the original well record. Staff are in the process of creating a new form to address this issue. In the interim, please follow this policy. If a reconstruction record is submitted for the pilot hole, the well will be certified to the construction standards reported on the reconstruction form. If the well has been plugged, a plugging registration form is required within 60 days of the pilot hole being plugged.

Welcome Contractors

The following individuals are now part of the Missouri Department of Natural Resources' permitted contractor community:

Environmental Works – Christopher Short
Natural Resource Tech – Eric Kazonovitz, Ronald Horan
Terracon – Jonathan Reber, Christopher Brewer
Tom Schroeder Drilling – Chris Williams

Welcome Apprentice Contractors

The following individuals are now part of the Missouri Department of Natural Resources' permitted apprentice contractor community:

Brotcke Well & Pump – Steven Allen, Jon Fleming
Layne Christensen – Anthony Smerk
Terracon – Brian Pennington
Tom Schroeder Drilling – Bradley VanMeter, Clint White

Wellhead Protection Section Staff

Wellhead Protection Section: 573-368-2165

Website: dnr.mo.gov/geology/geosrv/wellhd/job.htm

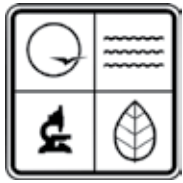
Well Online Services: dnr.mo.gov/mowells/

- **Kyle Rollins** – Section Chief
573-368-2171 • kyle.rollins@dnr.mo.gov
- **Justin Davis** – Investigation and Remediation Unit Chief
573-368-2167 • justin.davis@dnr.mo.gov
- **Sheri Fry** – Compliance and Enforcement
573-368-2115 • sheri.fry@dnr.mo.gov
- **Christy Miner** – Processing Unit Chief
573-368-2174 • christy.miner@dnr.mo.gov
- **Eric Hohl**
573-368-2168 • eric.hohl@dnr.mo.gov
- **Jeannie Hoyle**
573-368-2450 • jeannie.hoyle@dnr.mo.gov
- **Paul Meyer**
573-368-2159 • paul.meyer@dnr.mo.gov
- **Brad Mitchell**
573-368-2116 • brad.mitchell@dnr.mo.gov
- **Matt Parker**
573-368-2170 • matt.parker@dnr.mo.gov
- **Karen Smith**
573-368-2375 • karen.smith@dnr.mo.gov
- **Molly Starkey**
573-368-2196 • molly.starkey@dnr.mo.gov
- **Debbie Stogsdill** – Section Secretary
573-368-2165 • debbie.stogsdill@dnr.mo.gov

Farewell

The following individuals are no longer permitted to operate as contractors according to the Water Well Drillers Act and Well Construction Regulations:

American Environmental – Simon Broomhead
Aqua Wells – Joseph Sanders
Balkenbush Mechanical – Todd Balkenbush
Cherokee CRC – Dwayne Beavers
Environmental Properties – Jim Crawford
F L Gist Hardware – James Page
Golder Associates – Jared Wehde
Groundwater & Environmental – Adam Woloszyn
Henderson Heating & Cooling – Terry Mizer
Hutchins Telecom – Danny Flynn
Kleinfelder – Vince Domenico
Lafser & Associates – Adam Kaiser
Lawrence Welding – Elvis Lingenfelter
Lawson Pump & Plumbing – Reuben Lawson
McKinzie Environmental – Wood Ramsey
Midwest Hydro Drilling – James Luther
MoDNR – Brandi Higgins, George Fletcher, Aaron Clare, Stephen Jaques, Chris Thiltgen
Pauls Backhoe & Pump – Paul Schumaker
Professional Environmental – William Pietroburgo, Robby Reeves
T Drury Contracting – Danny Flynn
Thiele Geotech – Cory Bachman
Tiff City Pump – James McBee
Vanderford & Associates – John Vanderford
Vulcan Materials – Marsha Andrews
WDC Exploration & Wells – Justin Miller



Missouri Department of Natural Resources
Division of Geology and Land Survey
Wellhead Protection
PO Box 250
Rolla, MO 65402-0250

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